APPENDIX

A

THIS IS THE GENERAL LIST OF ARCONIUM ALLOYS. CUSTOM ALLOYS/FORMULATIONS ARE AN AILABLE TO SUIT YOUR SPECIAL REN UIRE! TS.

	YOUR SP		EQ UIR	E! TS.	-	·		_	## T		_	_
	Ostalio	-		elaule °F		•	rature °(Alloy	_		nsity
	Numbe	r Sol	id∎s	Liqui	des Solide	ı s	Liq	ridr s	5	lb	. in 3	g.cm
	51	5	1	E 51	10.7	£	E 1	0.7	62.5 Ga, 21.5 In, 16 Sn	.2	348	6.5 0
	60	6	0	E 60	15.7	£	E 1.	5.7	75.5 Ga, 24.5 In	.2	294	6.35
	117	11	17	E 11	7 47	Ε	Ξ 4	17	44.7 Bi, 22.6 Pb, 19.1 ln		307	9.16
									8.3 Sn, 5.3 Cd			
	129133	12	9	133	54		5	6	49.3 Bi, 20.8 In, 17.9 Pb,	.32	25 3	9.01
									11.5 Sn, .5 Cd			
	134149	13	4	149	57		6	5	47.5 Bi, 25.4 Pb, 12.6 Sn, 9.5 Cd, 5 In	.34	119	9.47
	136	130	6 1	E 136	58	Ε	5	8	49 Bi, 21 In, 18 Pb, 12 Sn	.32	53	9.00
	136156	136	ô	156	58		69	9	49 Bi, 18 Pb, 18 In, 15 Sn	.32	49	9.00
	142149	142	2	149	61		65	5	48 Bi, 25.7 Pb, 12.7 Sn,	.34	29	9.50
									9.6 Cd, 4 In			
	143	143	. E	143	61.5	Ε	61.	5	61.72 ln, 30.78 Bi, 7.5 Cd	.28	95	9.01
	156158	156	;	158	68		69) :	52 Bi, 26 Pb, 22 In	.345	50	
	158	158	Ε	158	70	Ε	70) 4	49.5Bi, 27.3Pb, 13.1Sn, 10.1Cd	.345		9.58
	158165A	158		165	70		73		50.5Bi, 27.8 Pb, 12.4Sn, 9.3 Cd	.349		9.67
	158173	158		173	70		78		50 Bi, 34.5 Pb, 9.3 Sn, 6.2 Cd	.357		9.89
er.	158194	158		194	70		90		2.5 Bi, 37.7 Pb, 11.3 Sn, 8.5 Cd	.354		9.81
	160190	160		190	71		88		2 Bi, 37 Pb, 12 Sn, 9 Cd	.354		9.81
	162	162	Ε		72	Ε	72		6.3 In, 33.7 Bi	.288		7.99
I,	165200	165	-	200	73	_	93		0 Bi, 39 Pb, 7 Cd, 4 Sn	.3650		10.11
ħį.	170180	170		180	77		82		0 Bi, 39 Pb, 8 Cd, 3 Sn	.6570		0.13
The state of the s	171	171	ε	171	77.5	ε	77.5		8.5 Bi, 41.5 ln, 10 Cd	.3066		8.49
	178	178	E	178	81	E	81		4.1 Bi, 29.6 In, 16.3 Sn	.3058		B.47
***	178185	178	_	185	81	_	85		0.4 Bi, 39.2 Pb, 8 Cd, 1.4 In,1Sn	.3664		9.80
	190200	190		200	87		93		1.45 Bi, 31.35 Pb, 15.2 Sn, 1 In	.3480		3.64
	197	197	Ε	197	92	Ε	92		.6 Bi, 40.2 Pb, 8.2 Cd	.3700		0.25
7	200	200	E	200	93	E	93		In, 42 Sn, 14 Cd	.2693		.46
E E	200210	200	_	210	93	_	99		Bi, 31 Pb, 19 Sn	.3458		.58
o in	202	202	Ε	202	95	Ε	95		Bi, 30 Pb, 18 Sn	.3465		.60
that find than and II.	203204	203	_	204	95		9 5 .5		Bi, 32 Pb, 16 Sn	.3500		.69
j	203204 203219A	203		219	95		104		Bi, 22 Pb, 22 Sn	.3382		.37
	203219B	203		219	95		104		Bi, 30 Pb, 20 Sn	.3440		.53
	203219C	203		219	95		104		1 Bi, 19.7 Pb, 34.2 Sn	.3270		06
	2032130	203		239	95		115		Bi, 25 Pb, 25 Sn	.3364		32
	203259	203		264	95 95		129		6 Bi, 37.4 Sn, 6 In, 5 Pb	.3097		52 58
	203277	203		277	95 95		136		Bi, 32 Pb, 31 Sn, 1 Ag	.3328	9.2	
	205225	205		225	96		107		Bi, 35 Pb, 20 Sn	.3465	9.6	
	205223 205271	205		271	96		133		Pb, 34 Sn, 32 Bi	.3303	9.1	
	208221	208		221	98		105		2 Bi, 37.8 Pb, 10 Sn	.3599	9.9	
	208234	208		234	98		112		6 Bi, 41.4 Pb, 7 Sn	.3657	10.	
	200234 212	212	E	212		E	100		Sn, 35.7 Bi, 28.6 Pb	.3370	9.3	
		215	E	226	100	_				.3660	10.1	
	215226		_			_	108		Bi, 39.5 Pb, 6\$n	.3111	8.6	
	219	219	E E	219		E E	104		Bi, 25.9 Sn, 20.2 Cd	.3180	8.8	
	229	229	C	229		Ę.	109		i, 33 ln	.3751	10.3	
	42248	242	_	248	117	-	120		i, 44 Pb, 1 Sn		7.30	
	444	244	Ε	244		Ξ	118		ı, 48 Sn	.2635		
	44257 44268	244		257	118				, 50 Sn	.2635	7.30 7.30	
	44268 44202	244		268	118				n, 48 ln	.2635	7.30	
	44293 49250	244		293	118				1, 42 ln	.2635	7.30 10.38	
	48250 40366	248		250	120				, 44 Pb, 1 In		7.86	
	48266 18206	248		266 206	120				. 40 Sn, 20 Pb		9.16	
24	18306	248		306	120		152	44 PD	o, 37 Sn, 21 Bi	.3307	J. 10	

E = Eutectic

250277 250 277 121 1.36 55.1 Bi. 39.9 Sn. 5 Pb 3.130 8.67	Ostallo	оу	Temper	a °F		Temper	ature °C		Alloy	De	nsity
2-83	Num b c				s Solid	du s	Liqu	id s s			
2-53											
1.										.3	130 8.67
255259											
257											
257302		255			124						
£62269 262 269 128 132 75 in, 25 Sn 2.220 7.30 €62671 266 343 130 173 56.84 Bi, 41.16 Sn, 2 Pb .3105 8.60 268338 268 378 131 170 51.5 Pb, 27 Sn, 21.5 Bi .3459 9.58 268375 268 375 131 190 80 In, 20 Sn 2710 .3115 9.63 270022 270 282 132 1339 45 Sn, 32 Pb, 18 Cd, 5 Bi .3115 8.63 * 281 281 E 281 138 E 138 58 Bi, 42 Sn .309 .858 * 281299 281 299 133 148 50 Bi, 50 Sn 2970 8.23 * 281293 281 338 138 170 60 Sn, 40 Bi 291 8.24 * 281338 281 338 138 170 60 Sn, 40 Bi 291 8.12 * 291332 291 291 144 163 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>											
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266343 266 343 130 173 50 Pb, 30 Sn, 20 Bi 3.419 9,47 268375 268 375 131 170 51.5 Pb, 27 Sn, 21.5 Bi .3458 9,58 270282 270 282 132 139 45 Sn, 32 Pb, 18 Cd, 5 Bi .3115 8,63 2775 MP 275 MP 135 57.4 Bi, 416, 5n, 1 Pb .3009 8,56 × 281 281 281 188 E 138 58 Bi, 42 Sn .3090 8,56 × 281299 281 291 138 170 60 Bi, 50 Sn .2970 8,56 × 281333 281 333 138 170 60 Sn, 40 Bi .2931 8,18 291325 291 E 291 144 E 144 60 Bi, 40 Cd .3316 9.31 291325 293 225 144 163 43 Pb, 43 Sn, 14 Bi .3245 8.99 291325 293 225 144 163											
268338 268 338 131 170 51.5 Pb, 27 Sn, 21.5 Bi .3458 9,58 268375 268 375 131 190 80 in, 20 Sn, 20 Sn, 21.5 Bi .2710 7,30 270282 270 MP 275 MP 135 57.4 Bi, 41.6 Sn, 1 Pb .3097 8,58 × 281 281 E 281 138 E 138 59.4 Bi, 41.6 Sn, 1 Pb .3097 8,28 × 281299 281 299 138 E 138 59.5 Bi, 50 Sn .2990 8,23 × 281333 281 333 138 167 43 Bi, 57 Sn .2960 8,16 * 281333 281 338 138 170 60 Sn, 40 Bi .2910 8,21 291 291 292 144 6162 48 Sn, 36 Pb, 16 Bi .3170 8,78 291 291 295 144 6163 40 Pb, 43 Sn, 14 Bi .291 7,51 291325 293 255 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>											
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270282 270											
• ≥ 275 MP 275 MP 135 57 A Bi, 41.6 Sn, 1 Pb .3097 8.58 ★ 281299 281 299 138 E 138 58 Bi, 42 Sn .3090 8.56 ★ 281333 281 299 138 148 50 Bi, 50 Sn .2960 8.16 ★ 281333 281 333 138 167 42 Bi, 57 Sn .2960 8.16 ★ 281324 284 324 140 162 48 Sn, 36 Pb, 16 Bi .3170 8.78 291 291 E 291 144 E 144 0 Bi, 40 Cd .3361 .3170 8.78 291325 291 225 144 163 49 Pb, 43 Sn, 14 Bi .3245 8.99 293 293 E 293 145 E 145 51.2 Sn, 30.6 Pb, 18 Bi .3245 8.99 293 293 325 145 162 75 in, 25 Pb .2830 7.34 296 296 296											
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¥ ∠81333 281 333 138 167 43 Bi, 57 Sn .2960 8.16 ¥ ∠81338 281 338 138 170 60 Sn, 40 Bi .2931 8.12 ¥ ∠84324 284 324 140 162 48 Sn, 36 Pb, 16 Bi .33170 8.78 291 291 E 291 144 E 144 60 Bi, 40 Cd .3361 9.31 291325 291 295 144 163 90 In, 10 Sn .2710 7.51 291325 291 325 144 163 43 Pb, 43 Sn, 14 Bi .3245 8.99 293 E 293 145 E 145 51.2 Sn, 30.6 Pb, 18.2 Cd .3050 8.45 293 296 E 296 146 E 146 97 In, 3 Ag .2664 7.38 293 300 148 149 80 In, 15 Pb, 5 Ag .2830 7.84 307A MP 313 MP 156.7 <th< td=""><td></td><td></td><td>_</td><td></td><td></td><td>_</td><td></td><td></td><td></td><td></td><td></td></th<>			_			_					
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*** 338	320345	320		345	160		174	70 In, 30	Pb	.2956	8.19
348 348 E 348 I 76 E 176 67.8 Sn, 32.2 Cd .2772 7.68 355 355 E 355 179 E 179 62 Sn, 36 Pb, 2 Ag .3036 8.41 355410 355 410 179 210 55 Pb, 44 Sn, 1 Ag .3289 9.10 355450 355 450 179 232 60 Pb, 37 Sn, 3 Ag .3390 9.39 355500 355 500 179 260 50 Sn, 47 Pb, 3 Ag .3198 8.86 356408 366 408 180 209 50 ln, 50 Pb .3198 8.86 361 361 E 361 183 E 183 63 Sn, 37 Pb .3032 8.40 361367 361 367 183 186 70 Sn, 30 Pb .2946 8.16 361370 361 370 183 188 60 Sn, 40 Pb .3068 8.50 361378 361 378 183 192 75 Sn, 25 Pb .2888 8.00 361390 361 390 183 199 80 Sn, 20 Pb .2844 7.85 361403 361 403 183 205 85 Sn, 15 Pb .2780 7.70 361413 361 413 183 212 50 Sn, 50 Pb .3202 8.87 361415 361 415 183 213 90 Sn, 10 Pb .2726 7.55 361432 361 432 183 222 95 Sn, 5 Pb .2679 7.42 361460 361 496 183 238 60 Pb, 40 Sn .3350 9.28 361514 361 514 183 268 75 Pb, 25 Sn .3595 9.96 380450 380 450 193 232 65 Pb, 35 In .3420 9.47 383437 383 437 195 225 60 Pb, 40 In .3350 9.30 390 390 E 390 199 E 199 91 Sn, 91 n .2626 7.27	₩ 338	338	E	338	170	Ε	170	65.5 Sn, 3	31.5 Bi, 3.0 <i>l</i> n	.2901	8.03
355 355 E 355 179 E 179 62 Sn, 36 Pb, 2 Ag 3036 8.41 355410 355 410 179 210 55 Pb, 44 Sn, 1 Ag 3289 9.10 335450 355 450 179 232 60 Pb, 37 Sn, 3 Ag 3390 9.39 355500 355 500 179 260 50 Sn, 47 Pb, 3 Ag 3198 8.86 356408 356 408 180 209 50 ln, 50 Pb 3198 8.86 361 361 E 361 183 E 183 63 Sn, 37 Pb 3032 8.40 361370 361 370 183 188 60 Sn, 40 Pb 3068 8.50 361378 361 370 183 188 60 Sn, 40 Pb 3068 8.50 361378 361 370 183 189 75 Sn, 25 Pb 2888 8.00 361390 361 390 183 199 80 Sn, 20 Pb 2834 7.85 361403 361 413 183 212 50 Sn, 50 Pb 3202 8.87 361415 361 415 183 212 50 Sn, 50 Pb 2726 7.55 361432 361 432 183 222 95 Sn, 5 Pb 267 7.42 361460 361 496 183 238 60 Pb, 40 Sn 30 Sn 359 9.72 383437 383 437 195 225 60 Pb, 40 ln 3350 9.30 390 E 390 199 E 199 91 Sn, 91 n 2666 7.27	345365	345		365	174		185	60 In, 40	Pb	.3077	8.52
355410 355 410 179 210 55 Pb, 44 Sn, 1 Ag .3289 9.10 355450 355 450 179 232 60 Pb, 37 Sn, 3 Ag .3390 9.39 355500 355 500 179 260 50 Sn, 47 Pb, 3 Ag .3198 8.86 356408 356 408 180 209 50 In, 50 Pb .3198 8.86 361 361 E 361 183 E 183 63 Sn, 37 Pb .3032 8.40 361367 361 367 183 186 70 Sn, 30 Pb .2946 8.16 361370 361 370 183 188 60 Sn, 40 Pb .3068 8.50 361378 361 378 183 192 75 Sn, 25 Pb .2888 8.00 361390 361 390 183 199 80 Sn, 20 Pb .2834 7.85 361403 361 403 183 219 85 Sn, 15 Pb .2780		348		348	176			67.8 Sn, 3	32.2 Cd	.2772	7.68
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355500 355 500 179 260 50 Sn, 47 Pb, 3 Ag .3198 8.86 356408 356 408 180 209 50 In, 50 Pb .3198 8.86 361 361 E 361 183 E 183 63 Sn, 37 Pb .3032 8.40 361367 361 367 183 186 70 Sn, 30 Pb .2946 8.16 361370 361 370 183 188 60 Sn, 40 Pb .3068 8.50 361378 361 378 183 192 75 Sn, 25 Pb .2888 8.00 361390 361 390 183 199 80 Sn, 20 Pb .2834 7.85 361403 361 403 183 205 85 Sn, 15 Pb .2780 7.70 361413 361 413 183 212 50 Sn, 50 Pb .3202 8.87 361432 361 415 183 213 90 Sn, 10 Pb .2726 7.5									_		
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Ostalloy	Temperature °F		ature °F	Temperature °C			A) oy			وراجات
Number	Soli		Liq # id# s	Solid	s	Liq :	id s s	•	lb . ir	
430	43	0 E	430	221	Ε	22	1 96.5 Sn, 3.5 Ag		.265	7 7.20
430448	43		448	221		23	•		.264	
430465	430		465	221		24			.266	
430563	430		cca	221		29	_		.2711	
450	750	MP	,	,	MP				.2628	
450456	450		456	232	****	235			.2690	
450464	450	1	464	232		240	95 Sn, 5 Sb		.2617	
451		MP	451		MP	233	65 Sn, 25 Ag, 10 S	Sb	.2818	
463470	463		470	239		243	85 Pb, 10 Sb, 5 Sr	1	.3820	
463545	463		545	239		285	92 Pb, 5 Sn, 3 Sb		.3906	
482508	482		508	250		264	75 Pb, 25 In		.3599	
486500	486		500	252		260	90 Pb, 10 Sb		.3826	10.60
514570	514		570	268		299	88 Pb, 10 Sn, 2 Ag		.3887	10.77
518536	518		536	270		280	81 Pb, 19 In		.3707	10.27
520		MP	520		MP	271	100 Bi		.3541	9.80
522603	522		603	273		316	96 Pb, 4 Sn		.3930	10.87
524564	524		564	274		296	95 Bi, 5 Sb		.3445	9.54
527576	527		576	275		302	90 Pb, 10 Sn		.3881	10.75
529553	529		553	277		290	85 Pb, 15 In	,	.3795	10.51
536	536	Ε	536	280	Ε	280	80 Au, 20 Sn		5242	14.51
536558	536		558	280		292	90 Pb, 10 In		3870	10.72
549565	549		565	287		296	92.5 Pb, 5 Sn, 2.5 A	g .	3978	11.02
554590	554		590	290		310	90 Pb, 5 In, 5 Ag		3971	11.00
558		MP	558		MP	292	90 Pb, 5 Ag, 5 Sn		3971	11.00
558598	558		598	292		314	95 Pb, 5 in	.3	3980	11.06
570580	570		580	299		304	95.5 Pb, 2.5 AG, 2 Si	n .4	1043	11.20
572		MP	572		MP	300	92.5 Pb, 5 In, 2.5 Ag	.3	1978	11.02
579	579	E	579	303	Ε	303	97.5 Pb, 2.5 Ag	.4	090	11.33
581687	581		687	305		364	95 Pb, 5 Ag	.4	079	11.30
588	588	Ε	588 3	309	Ε	309	97.5 Pb, 1.5 Ag, 1 Sn	.4	072	11.28
590598	590		598 3	110		314	95 Pb, 5 Sn	.3:	980 1	11.06
590611	590		611 3	10		322	98.5 Pb, 1.5 Sb	.40	054 1	11.23
597		MP	597		MP	313	91 Pb, 4 Sn, 4 Ag, 1 Ir	1 .40	060 1	11.24
620		MP	620		MP	327	100 Pb	.40	90 1	11.35

E = Eutectic MP = Melting Point

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